

when referring to the corporate entity that files the patent application it owns, such as Biological Systems, Inc., here. This nomenclature is also entirely consistent with the nomenclature applied by the United States Court of Appeals for the Federal Circuit. *See, e.g., DH Technology, Inc. v. Synergystex, Inc.*, 154 F.3d 1333, 1339 (Fed. Cir. 1998) (“An **applicant** establishes small entity status by filing a verified statement, averring ‘that the concern qualifies as a small business concern’ with the PTO.”) (emphasis added). Accordingly, it is appropriate for Biological Systems, Inc. to refer to itself as the “Applicant” in this Application.

Applicant respectfully appreciates Examiner’s identifying this issue respecting nomenclature so as to insure the record is clear. So as to remain consistent with the current prosecution of the Application, Biological Systems, Inc., will maintain the nomenclature it has previously established and continue to refer to itself as the Applicant. *See e.g., Application*, at 9, *ll.* 14-15; Amendment Under 37 C.F.R. § 1.111, filed July 1, 2002, at 11, *l.* 22; Second Amendment Under 37 C.F.R. § 1.111, filed August 14, 2002 (“Applicant’s Second Amendment”), at 8.

## **II. REQUEST REGARDING MANNER OF MAKING AMENDMENT**

Applicant sincerely appreciates the Examiner’s recommendations respecting future amendments of the claims. In the present paper, Applicant is not modifying the claims. However, to the extent Applicant does so in the future (in this or other applications), Applicant shall use its best efforts to comport with the practices outlined by Examiner.

## **III. CLARIFICATION OF REMARKS**

The Examiner has noted that Reference ANA stated the following: “Many of our products are either patented or have patents pending.” Paper No. 11, at 4-5. As reflected in Reference ANA, these statements pertain to Applicant’s Non-Microbial Products, such as Applicant’s BAT-95 and BOC-95, which are surfactant-based cleaning systems that do not contain bacteria. Some of the surfactants used in these non-microbial cleaning systems are licensed from third parties, to which these third parties have issued patents and pending patent applications covering those surfactants. Such surfactants are cumulative to those surfactants identified and disclosed in the Application. Accordingly, Applicant believes that these patents and patent applications are not material to patentability of any pending claim of the present Application.

**IV. INVENTORSHIP ISSUES**

The Examiner has indicated Applicant's 1.131 Declarations do not support the fact the Inventors invented the claimed invention because, according to the Examiner, the Declarations do not prove the fact of reduction to practice. Paper No. 11, at 5-6. Applicant respectfully traverses the position of Examiner. Applicant contends the Inventors' Declarations attached to its prior Office Action firmly establish the Inventors conceived of the invention before May 9, 1999, and were diligent in their efforts to reduce the invention to practice. So as to insure the record is clear on this matter (and other matters raised by Examiner in Paper No. 11), Applicants are herein submitting the Second Declaration of Brian Doege Under 37 C.F.R. §§ 1.131 and 1.132 ("Doege's November Declaration"), which further reflects the circumstances underlying their invention of the claimed invention.

The four declarations by the inventors under 37 C.F.R. § 1.131 attached to Applicant's Second Amendment provide facts showing that the inventors invented the claimed invention before the May 9, 2000. Each of them attested that the claimed invention was conceived before this date. The documentary evidence attached to the 1.131 Declaration of Brian Doege ("Doege's August 1.131 Declaration") corroborates each of these sworn statements.<sup>1</sup> The evidence reflects that, before May 9, 1999, Applicants had conceived of the idea to treat recirculation tank toilet systems with a novel bacteria/surfactant treatment and that such bacteria/surfactant treatment would contain (a) the type of bacteria as specified by the claims, and (b) the weight ratio of bacteria/surfactant in the amounts specified in the claims. *See* Exhibits B-D to Doege's August 1.131 Declaration; *see also* Doege's November Declaration, ¶¶ 2-17 & 21. Accordingly, the documentary evidence proves conception by the inventors. *See* M.P.E.P. § 2138.04.

Moreover, the documentary proof further reflects Applicant and the Inventors diligently reduced the invention to practice. The documentary evidence reflects Applicant and the Inventors approached third parties during the first quarter of 2000 and discussed confidentially

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<sup>1</sup> The documentary evidence, which is attached to Doege's August 1.131 Declaration, supports the statements made in each Inventor's 1.131 Declarations. Accordingly, none of the 1.131 Declarations are merely naked assertions.

testing the invention in the third parties' recirculation tank toilet systems, and that such testing occurred at the third parties' facilities throughout the year 2000. *See*, Doege's August 1.131 Declaration, Exhibit D; *see also* Doege's November Declaration, ¶¶ 18-24 & Exhibit E.

Examiner acknowledged, in Paper No. 11, that the claimed invention was reduced to practice through testing that occurred at AMTRAK and Metro North. Paper No. 7. As will be discussed further below, this testing was done by AMTRAK and Metro North on behalf of the Applicant and Inventors. Accordingly, this reduction to practice is attributed to Applicant and the Inventors. *See* M.P.E.P. § 2137.01; *see also In re DeBaun*, 687 F.2d 459, 463, 214 U.S.P.Q. 933, 936 (C.C.P.A. 1982) ("there is no requirement that the inventor be the one to reduce the invention to practice so long as the reduction to practice was done on his behalf.").

Accordingly, Applicant and Inventors have established diligence from the conception before May 9, 2000 through reduction to practice. *See* M.P.E.P. § 715.07(a).

Examiner appears to suggest that Applicant has not completely sworn behind *Tobey* because Applicant has not provided further documentary evidence pertaining to certain elements of the claimed invention appearing in the dependant claims. Paper No. 11, at 5-6. The 1.131 Declarations are not insufficient on that basis. M.P.E.P. § 715.02. "If the [1.131] affidavit contains facts showing a completion of the invention commensurate with the extent of the invention as claimed is shown in the reference, the affidavit is sufficient, whether or not it is a showing of the identical disclosure of the reference." *Id.*; *see also In re Wakefield*, 422 F.2d 897, 164 U.S.P.Q. 636 (C.C.P.A. 1970). As Applicant has provided documentary proof of the invention commensurate with the scope of *Tobey*, Applicant has sworn behind this reference.

Lastly, the Examiner indicated it is unclear to him why Applicant has sworn behind the reference after Examiner had already conceded that *Tobey* did not contain elements that are now in each of the pending claims. Applicant believes the record should properly reflect what is, and what is not, prior art to the invention of the Application.

#### V. REJECTION UNDER § 102(G)

The Examiner has rejected Claims 3-5, 8-20, 27-28, 39, and 42-48 under 35 U.S.C. § 102(g) because AMTRAK and/or Metro North reduced the invention to practice before Applicant's filing date of November 27, 2000. Paper No. 11, at 7. Applicants traverse this rejection.

AMTRAK and Metro North were performing testing for the benefit of Applicant for a treatment conceived of by the Inventors. Thus, such a reduction to practice is attributable to Applicant and the Inventors, not AMTRAK and Metro North. M.P.E.P. § 2137.07. Moreover, for AMTRAK and/or Metro North personnel to be inventors, they must have conceived of the invention. M.P.E.P. § 2138.04. In fact, it was the Inventors, who did so, and no one else. Doege's November Declaration, ¶ 20.

In Paper No. 7, Examiner stated that AMTRAK's expressions "prompted applicants to run a 'test' of the MTC-2000 product." The Declarations do not support this statements not is there any suggestion of such inventorship by AMTRAK and/or Metro North. It is unclear how the Examiner reached such a conclusion in light of Doege's August Declarations and the remaining Inventors' Declaration. To clarify this issue, Doege's November Declaration makes certain the novel idea was originated by the Inventors, and not by third parties, such as, and including, personnel at AMTRAK and Metro North. Doege's November Declaration, ¶¶ 5-28.

A prerequisite of a § 102(g) rejection is that the invention was invented by another (*see* M.P.E.P. § 706.02(h)), which for the present invention did not happen. Accordingly, Applicant respectfully requests the Examiner withdraw the rejections of Claims 3-5, 8-20, 27-28, 39 and 42-48 under U.S.C § 102(g).

#### **VI. REJECTION UNDER § 102(B)**

The Examiner has rejected Claims 3-5, 8-20, 27-28, 39, and 42-48 under 35 U.S.C. § 102(b) for having offered the sale of the invention more than one year before Applicants filed the patent application. Paper No. 11, at 7. Applicant's traverse this rejection.

As an initial matter, no such offer was ever given. Doege's November Declaration, ¶¶ 25 & 29-31. To determine whether the Inventors' conceived invention would work for its intended purpose, it was necessary for Applicant's to perform tests in recirculation tank toilet systems. *Id.*, at ¶¶ 23 & 26. They did so confidentially at AMTRAK and Metro North's facilities. *Id.*, ¶ 27. Moreover, these activities were under the supervision and control of the Applicant. *Id.*, at ¶¶ 23-24. The primary purpose of the testing was experimentation. *See, e.g., id.*, ¶¶ 23-26. Accordingly, even if there were some minor incidental commercial benefit associated with such experimentation, this would not make this experimentation activity an offer for sale. M.P.E.P. § 2133.03(e); *see also LaBounty Mfg. v. United States Int'l Trade Comm'n*, 958 F.2d 1066, 1071,

22 U.S.P.Q.2d 1025, 1028 (Fed. Cir. 1992). Thus this testing was completely permissible and was not an offer for sale of the invention. M.P.E.P. § 2133.03(e).

Furthermore, the first time Applicant and the Inventors approached AMTRAK and Metro North respecting the invention did not occur until after November 27, 1999. Doege's November Declaration, ¶ 32. Thus, even if somehow the Applicant's or the Inventors' actions could rise to the level of an offer for sale (which they do not), it still would not be a § 102(b) bar to patentability. M.P.E.P. § 706.02(c).

Accordingly, Applicant respectfully requests the Examiner withdraw the rejections of Claims 3-5, 8-20, 27-28, 39 and 42-48 under U.S.C § 102(b).

#### **VII. REJECTION UNDER § 103(a)**

The Examiner has rejected Claims 3-5, 8-20, 27-28, 39, and 42-48 under 35 U.S.C. § 102(e) as obvious over the BMET-7 Product and/or BMTB-2010 Block prior sales and United States Patent No. 4,793,386 issued to Sloan ("*Sloan*"). Paper No. 11, at 9. Applicant's traverse this rejection.

The Examiner's argument appears to premised on the basis that *Sloan*'s suggestion to recirculate the contents of a septic tank in the course of cleaning it out constitutes that Sloan discloses a recirculating the flushing fluid and further discloses a recirculation tank toilet system. Paper No. 11, at 9. Such suggestions are misplaced. Sloan discloses an arrangement wherein a pump is connected to the septic tank to mix and recirculate material in the septic tank. *Sloan*, col. 11, ll. 55-65. *Sloan* also reflects a process by which the septic tank can be cleaned out by taking the fluid from the septic tank and injecting it under high pressure back into the septic tank. *Sloan*, col. 12, ll. 25-40.

As noted in by Applicant in its Second Amendment, a recirculation (or recirculating) tank toilet system is well understood by a person of ordinary skill in the art in the field of the Application to be a toilet system in which the liquids are recovered from the toilet waste and thereafter reused to rinse the toilet bowl. *See, e.g.*, United States Patent No. 3,567,032, issued to Kemper, United States Patent No. 3,776,107, issued to Molus, and United States Patent No. 5,045,188, issued to Tsai. Applicant used this term consistent with this understanding. *See, e.g.*, Application, at 11-12, & Figure 1A-1B. Accordingly, *Sloan* does not disclose a flushing fluid charged to a recirculation tank toilet system. Thus, the elements Examiner contends *Sloan* adds

to BMET-7 Product and/or BMTB-2010 Block to render the claims at issue obvious are simply not present.

Moreover, each of the BMET-7 Product, the BMTB-2010 Block, and *Sloan* further does not disclose a tank toilet system that is selected from the group consisting of airplane toilet systems, bus toilet systems, and train toilet systems. These elements cannot be discounted or ignored. Persons of ordinary skill in the art of the Application would understand that recirculation tank toilet systems, particularly those used in airplanes, busses, and trains, are different and encounter unique problems, as compared to septic tank systems (which are stationary in the ground) and systems utilizing black water retention tanks (which are stationary during maintenance). Rather, transportation recirculation tank toilet systems are filled and emptied in cycles ranging anywhere from hours to days, are constantly moving, and are constantly agitating the water to recyle flushing liquids through the toilet.

Accordingly, the BMET-7 Product, BMTB-2010 Block, and *Sloan*, individually or in combination, do not disclose all of the features of the claimed invention. Thus, the claimed invention is not obvious in view of these references.

While the above shows the nonobviousness of Applicant's invention, objective evidence of nonobviousness further supports Applicant's assertion. Doege's August 132 Declaration shows, *inter alia*, Applicant's invention has enjoyed commercial success, has obtained unexpected results, has been professionally approved after initial skepticism by experts, has been copied by others, and has become an industry standard. Doege's August 132 Declaration, ¶¶ 1-20; *see also* Second Amendment, at 18-21.

Therefore, the Applicant respectfully asserts that this objective evidence substantiates the nonobviousness of Applicant's invention.

Applicant respectfully reminds the Examiner that when objective evidence of nonobviousness are properly presented, this evidence must be considered. *In re Sernaker*, 702 F.2d 989, 996, 217 U.S.P.Q. 1, 7 (Fed. Cir. 1983). Moreover, such evidence can "often serve as insurance against the insidious attraction of the siren hindsight" when evaluating the prior art. *W. L. Gore & Assoc., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1553, 220 U.S.P.Q. 303, 313 (Fed. Cir. 1983).

Because the BMET-7 Product, BMTB-2010 Block, and *Sloan*, individually and in combination, do not teach or suggest all of the limitations of any of the rejected claims, and because the objective evidence shows nonobviousness of these claims, Applicant respectfully asserts that all of Claims 3-5, 8-20, 27-28, 39, AND 42-48 are allowable under 35 U.S.C. § 103(e) over the BMET-7 Product and/or BMTB-2010 Block prior sales *Sloan*.

#### **VIII. CONCLUSION**

As a result of the foregoing, it is asserted by Applicant that the remaining Claims in the Application are in condition for allowance, and respectfully request an early allowance of such Claims.

Applicant respectfully requests that the Examiner call Applicant's attorney at the below listed number if the Examiner believes that such a discussion would be helpful in resolving any remaining problems.

Respectfully submitted,

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